

ABSTRACT

The present invention concerns a fuel reformer for
5 reforming a hydrocarbon base fuel in to a hydrogen rich gas
and a manufacturing method thereof, and the fuel reformer of
the present invention wherein a Cr oxide layer is formed on at
least a part of the surface of steel material making the
reformer produces no red scale through water vapor oxidation
10 of the surface of steel material making the reformer, even
when exposed to an atmosphere of low oxygen concentration
and/or high water vapor concentration under a high temperature
and has an extremely important industrial utility value
because it is highly heat resistant, light, low cost and
15 cheap, highly reliable and long life, and moreover a cheap,
highly reliable and long life fuel reformer can be
manufactured at a low cost and easily by the manufacturing
method of the present invention.

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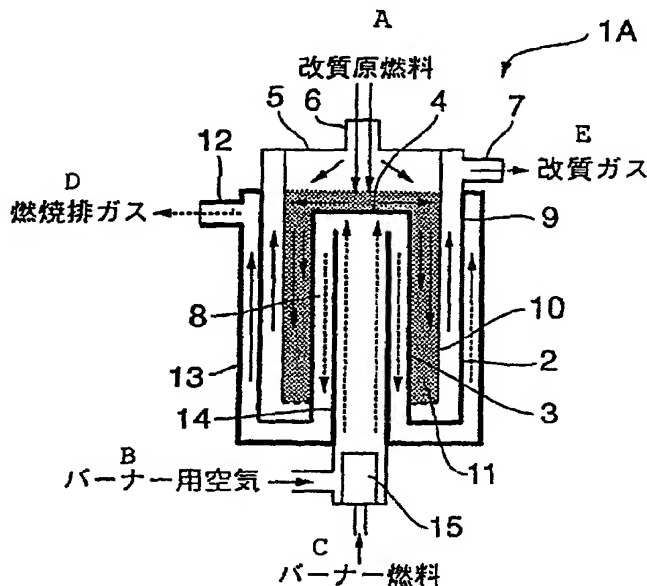
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(54) Title: FUEL REFORMING REACTOR AND METHOD FOR MANUFACTURE THEREOF

(54) 発明の名称: 燃料改質器およびその製造方法



(57) Abstract: A fuel reforming reactor for reforming a hydrocarbon fuel into a gas rich in hydrogen, characterized in that a chromium oxide layer is formed on at least a part of the surface of a steel material constituting the reforming reactor; and a method for manufacturing the fuel reforming reactor. The reforming reactor is free from the generation of red scales through the steam oxidation of the surface of the steel material constituting the reforming reactor, even when it is exposed to a low oxygen concentration and/or high steam concentration atmosphere at a high temperature, has high heat resistance, is light in weight, exhibits high reliability and a long useful life, and can be manufactured at a low cost with ease by using the method according to the invention, and thus is of great utility value in industry.

- A...RAW FUEL TO BE REFORMED
B...AIR FOR BURNER
C...FUEL FOR BURNER
D...BURNED EXHAUST GAS
E...REFORMED GAS

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